North American Drought Monitor – October 2006

CANADA: As of the end of October, drought conditions persisted throughout British Columbia, northern Alberta, and from the southern Prairies into northwestern Ontario. Conditions throughout eastern Canada have improved in the past month, particularly in Nova Scotia and much of southern Ontario, which have received above-average precipitation and are no longer considered in an abnormally dry (D0) or moderate drought (D1) situation.

British Columbia: Dry conditions throughout the province persisted, with conditions further deteriorating along the west coast, including the lower mainland, due to low precipitation. One-month precipitation was recorded at 21 to 50 percent of normal for the majority of this region, while long-term (six-month) precipitation remains at 40 to 60 percent of normal. Northern agricultural regions, which include the Peace Region, remain extremely dry. Water supplies for agricultural purposes are at critical levels, with many dugouts and wells unusable. Some producers are being forced to sell off much of their breeding stock because they do not have funds to purchase feed and transport water. Steam flows for much of the province remain at or near record-low levels. Prolonged and significant precipitation inputs are needed to restore water levels and to provide adequate soil moisture and water supplies for agriculture in the spring.

Alberta: At the end of October, there was a slight improvement in drought conditions in southern Alberta; however, very low precipitation in northern regions has resulted in continued deterioration. The long-term precipitation in the Peace Region of northwestern Alberta is extremely low. Throughout October, conditions continued to deteriorate and have resulted in a substantial expansion of this region into the northeast. The Peace Region still requires average to above-average precipitation throughout the winter period to help reverse the effects of the prolonged drought. Regions in the southern Alberta are also abnormally dry (D0) or in moderate drought (D1) condition. Localized improvement has been seen throughout October; however, above-average precipitation is still required throughout the region for drought recovery. Stream flows throughout much of the province are less than average for this time of year.

Saskatchewan: Southern regions of Saskatchewan saw very little change in conditions as of the end of October. Precipitation was variable, with some areas receiving average monthly precipitation and other regions receiving well-below-normal totals. The drought area was reduced slightly, but there is still a considerable area classified as moderate to severe drought (D1 to D2) in both the southeast and southwest corners of the province. Water supply and pasture conditions continue to be a real concern in these regions, with many dugouts and streams dry or rendered unfit for livestock use. As the ground begins to freeze, topsoil moisture for the majority of the southern region is classified as very poor.

Manitoba: Some relief came in the form of above-average October precipitation for much of the southern regions of the province with the exception of the southwest. With the recent precipitation, conditions have improved slightly; however, the prolonged drought throughout the province this summer will mean that additional months of above-normal precipitation will be required for recovery. Dugouts remain dry in many regions and the remainder report very low water levels. A large region of southern Manitoba received less than 60 percent of normal

precipitation from April 1 to October 31, resulting in one of the driest years on record. Levels and flows of most rivers in southern Manitoba are well below average.

Ontario: Significant improvement was seen in conditions through southern Ontario, resulting in dry or drought classifications being lifted. The Northeast remains very dry and continues to have low stream flows. With an average of 30 mm of precipitation received in October, conditions were unable to recover in the southern portion of Northeast Ontario. Moderate to severe drought (D1 to D2) conditions occurring in this region have caused substantial reductions in yields of both crops and forage and have caused widespread concern. Forage supplies are at very low levels and producers have been forced to import additional feed for cattle or reduce their herd size.

UNITED STATES: For the second consecutive month, cooler- and wetter-than-normal weather prevailed in many of the nation's drought areas, leading to further improvement in the long-term drought status. According to preliminary information provided by the National Climatic Data Center, the nation's average temperature of 53.8 degrees F (12.1 degrees C) was 0.9 degree F (0.5 degree C) below the 20th-century mean and represented the 29th-lowest value during the 112-year period of record. On a state-by-state basis, rankings ranged from the 14th-coolest October in Illinois to the 35th-warmest October in Texas.

Meanwhile, October precipitation averaged 2.82 inches (71.6 mm), 134 percent of normal, the 12th-highest value since 1895. Top-ten wetness was noted in 11 states; those with near-record October totals included Maine (second-wettest October) and Louisiana (third wettest). It was the fifth-wettest October in Ohio, New Hampshire, and Vermont. In contrast, Oregon experienced its 16th-driest October; South Dakota (19th-driest October) also attained a top-twenty ranking.

Significant changes during October included the eradication of abnormal dryness (D0) and moderate drought (D1) from the western Gulf Coast region to the southern Appalachians, and a reduction in drought intensity elsewhere across the South. An exception was the southern Atlantic region, including southern Georgia and much of Florida, where dryness and drought (D0 and D1) persisted or developed. Farther west, there was general improvement in most of Texas and southeastern Oklahoma, with exceptional drought (D4) being removed and an area of extreme drought (D3) being broken into two pieces. However, much of October's rain bypassed northern Oklahoma, leaving 29 percent of the state's winter wheat crop rated in very poor to poor condition on November 5, according to the U.S. Department of Agriculture (USDA). Elsewhere, there were modest improvements in the drought depiction across the northern and central Plains and the Southwest, although long-term precipitation deficits remained significant. Pasture and rangeland conditions were reflective of long-term drought effects across the nation's mid-section. For example, in USDA's final report of the season, valid October 29, more than half of the pasture and rangeland was rated in very poor to poor condition in four drought-affected states: Wyoming (63 percent), Oklahoma (58 percent), Missouri (56 percent), and Texas (54 percent).

MEXICO: In October wet conditions were reported across the Baja California peninsula, northern and central Mexico. The National Meteorological Service (SMN) registered a national precipitation average of 88.2 mm. This is in direct comparison with the long-term average of

75.3 mm calculated from 1941-2006. During October, the eastern tropical Pacific again was very active. From four tropical systems which formed in this month, Tropical Storm Norman and Hurricane Paul brought significant rains to areas of central part of the Baja California peninsula and western and northwestern Mexico. In addition, during the first week of October, generous rains were observed along the Gulf of Mexico coast and across the Yucatan peninsula. Nevertheless, the low cyclonic activity of the Atlantic Ocean and Caribbean Sea resulted in unusual dryness during the rest of month on the Gulf of Mexico coast and the Yucatan peninsula, where the moderate drought (D1) conditions were reported in the north of Veracruz State and in the east and northeast of the Yucatan peninsula.

Despite the passage of several cold fronts over the north of Mexico, precipitation was not reported in this area except from October 24-25, when the heavy rains were brought by Hurricane Paul. As a consequence, important changes in Mexican Drought Monitor include the extension of abnormally dry (D0) and moderate drought (D1) conditions across Chihuahua and Coahuila, where severe (D2) and extreme (D3) drought conditions were reported in the north and northeast of Chihuahua and northern and central parts of Coahuila. At the end of October, the National Water Commission (CONAGUA) reported dam levels in Coahuila lower than 60% of capacity. Finally, in the north of the Baja California peninsula and northeast of the Sonora State, abnormally dry (D0) to moderate drought (D1) conditions dominate. Conditions remain mostly unchanged in the northeast and east of Oaxaca and frontier region of Chiapas.